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EXAMINER

ABYANEH, ALI S

ART UNIT PAPER NUMBER

2133

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,123

Applicant(s)

ARMINGTON ET AL.

Examiner

Ali S. Abyaneh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 15, 16, 21 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02-28-02, 10-14-03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, 17-20 and 22-25, drawn to a method and a system for authentication of an entity and messages, classified in class 713, subclass 170.
 - II. Claims 15,16, 21 and 26, drawn to access control based on biometric, classified in class 713, subclass 186.
2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as authentication of an entity and messages. Invention II has separate utility such as access control based on biometric. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
8. During a telephone conversation with Eileen Lehmann on May 15, 2005 a provisional election was made without traverse to prosecute the invention of I, claim 1-14, 17-20 and 22-25. Affirmation of this election must be made by applicant in replying to this Office action. Claim 15, 16, 21 and 26 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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9. Claims 1-26 are presented for examination.

Information Disclosure Statement PTO-1449

10. The Information Disclosure Statement submitted by applicant on 2/28/2002 and 10/14/2003 has been considered. Document number W 098230692 has been changed and corrected by examiner to W 09823062. Please see attached PTO-1449.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 13 is rejected under 35 U.S.C. 102(e) as being anticipated by James M. Foley et al. (US Publication NO. 2002/0087894).

Regarding Claim 13

Foley teaches a method for authenticating a user, comprising the steps of: (a) receiving a claimed identity of a user (paragraph [0035]); (b) receiving a first authentication sample from said user via a first communication channel (paragraph [0035] and [0050]); (c) receiving a

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second authentication sample from said user (paragraph [0038]-[0039]) via a second communication channel ((paragraph [0050]) (authentication system may use one or more communication channel 502)); (d) verifying at least one of said first and second authentication samples based on a stored template uniquely associated with said claimed identity; and (e) verifying another of said authentication samples in a manner independent of said verifying in (d); and (f) granting access to said user based on said verifying in steps (d) and (e) (paragraph [0035]-[0039]).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 2, 5, 6, 8, 9, 11, 14, 17-19, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Tadhg Kelly et al. (US Patent 6,678,826).

Regarding Claim 1, 14 and 22

Foley teaches a method/ computer-readable medium for authenticating a user, comprising the steps of: (a) receiving a claimed identity of a user (paragraph [0035]); (b) receiving a first authentication

sample from said user via a first communication channel/ path (paragraph [0035] and [0050]); (c) establishing a second communication channel/ path with said user ((paragraph [0050]) (authentication system may use one or more communication channel 502)); (e) verifying at least one of said first and second authentication samples based on a stored template uniquely associated with said claimed identity; (e) verifying another of said authentication samples in a manner independent of said verifying in (d); and (g) granting access to said user based on said verifying in steps (e) and (f) (paragraph [0035]-[0039]). Foley furthermore teaches authentication method may communicate the data to the user using different protocols (paragraph [0052] and [0053]). Foley does not explicitly teach **said second communication channel/ path being out-of-band with respect to said first communication channel/ path and (d) performing at least a portion of a challenge-response protocol, regarding a second authentication sample, with said user over said second communication channel/ path.** However, in an analogous art, Kelly discloses an out-of-band communication channel/ path (column 3, lines 45-48 and column 4, lines 55-59) and uses a challenge-response protocol (column 8, lines 51-53). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's method to include second communication channel/path being out-of-band and performing at least a portion of a challenge-response protocol, regarding a second authentication sample, with said

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user over said second communication channel/ path. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to discriminate and permit limited access to some user and unlimited to others (column 5, lines 61-64).

Regarding Claim 2

Foley and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method wherein said step (d) includes: (1) prompting said user via said second communication channel to provide at least one of said authentication samples; and (2) receiving said prompted authentication sample via said first communication channel ((paragraphs [0035]-[0039] and [0050]) ("authentication system may use one or more communication channel 502". Examiner considers using any other communication channel 502 as applicant's second communication channel)).

Regarding Claims 5 and 9

Foley and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method comprising changing (updating) a template database based on at least one of said verified authentication samples and where at least one of said authentication

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samples is a dynamically changing attribute held by said user ((paragraph [0038]) ("user may select changes to the authenticating method"))).

Regarding Claims 6, 8,19 and 24

Foley and Kelly teach all limitation of the claim as applied to claim 1, 17 and 22 above and furthermore Foley teaches a method wherein said first communication channel/ path is telephonic and said second communication channel/ path is a computer network and at least one of authentication sample is a biometric attribute (paragraph [0026] and [0042]).

Regarding Claim 11

Foley and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method, wherein said step (f) includes the steps of: generating a first string based on said another authentication sample; independently generating a second string based on said claimed identity; digitally comparing said first and second strings; and authenticating said another authentication sample if said strings match (paragraph [0033]-[0039]).

Regarding Claim 17

Foley teaches a method for providing user authentication to control access to a protected application, comprising: (a) an interface, configured

to receive a claimed identity of a user; (b) an interface, connected to a first communication path, configured to receive a first authentication datum associated with said user; (c) an interface, connected to a second communication path to said user (paragraph [0050])("authentication system may use one or more communication channel 502")); (e) means for verifying said first authentication datum based on a nominal identity of said user; and (f) means for verifying said second authentication datum independently of (e); and (g) means for granting access to said user after both authentication data are verified (paragraph [0035]-[0039]).Foley furthermore teaches authentication method may communicate the data to the user using different types of communication (paragraph [0052] and [0053]) . Foley does not explicitly disclose **an interface, connected to a second communication path being out-of-band with respect to said first communication path; (d) means for performing, over said second communication path, at least a portion of a challenge-response communication regarding a second authentication datum associated with said user.** However, in an analogous art, Kelly discloses an out-of-band communication channel (column 3, lines 45-48 and column 4, lines 55-59) and uses a challenge-response communication (column 8, lines 51-53). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's method to include second communication path being out-of-band and performing at least a portion of a challenge-response communication,

regarding a second authentication datum. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to discriminate and permit limited access to some user and unlimited to others (column 5, lines 61-64).

Regarding Claim 18

Foley and Kelly teach all limitation of the claim as applied to claim 17 above and furthermore Foley teaches a method, where (d) further comprises means for prompting said user via said second communication path to provide said second authentication sample via said first communication path (paragraph [0035]-[0039]) and furthermore Foley discloses that authentication system may use more communication channel for exchange of data (paragraph [0050]).

Regarding Claim 23

Foley and Kelly teach all limitation of the claim as applied to claim 22 above and furthermore Foley teaches a method, wherein at least one of said means for receiving includes: means for prompting said user via said first communication channel to provide at least one of said authentication samples; and means for receiving said prompted authentication sample via said second communication channel. ((Paragraphs [0035]-[0039] and [0050]) ("authentication system may use

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one or more communication channel 502". Examiner considers using any other communication channel 502 as applicant's second communication channel)).

15. Claims 3, 4, 7, 10, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Tadhg Kelly et al. (US Patent 6,678,826) and further in view of Larry P. Heck (US Patent 6,671,672).

Regarding Claims 3, 4, 7, 10, 20 and 25

Foley and Kelly teach all limitation of the claim as applied to claim 1, 17 and 22 above and furthermore Foley teaches a method of voice recognition (paragraph [0026]). Foley and Kelly do not explicitly disclose **converting said spoken authentication sample into textual form via the application of speech recognition techniques and said (e) includes authenticating a unique vocal characteristic of said user by applying a speaker verification protocol involving said claimed identity, said template, and said spoken authentication sample and determining a telephonic caller identification of said user.**

However in analogous art, Heck discloses a method of converting spoken authentication sample into textual form (column 6, lines 23-28), said (e) includes authenticating a unique vocal characteristic of said user by applying a speaker verification protocol involving said claimed identity,

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said template, and said spoken authentication sample (column 6, lines 16-43) and determining a telephonic caller identification of said user (column 4, lines 59-62). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's and Kelly's method to include converting spoken authentication sample into textual form, authenticating a unique vocal characteristic of said user by applying a speaker verification protocol involving said claimed identity, said template, and said spoken authentication sample and determining a telephonic caller identification of said user. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to convert voice sample to text in order to compare the content of the output of the speech recognizer with the specified content, such as a stored password (column 4, lines 50-53) and verify the identity of the user (column 4, lines 59-62).

16. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Tadhg Kelly et al. (US Patent 6,678,826) and further in view of David L. Wood et al. (US Patent 6,668,322).

Regarding Claim 12

Foley and Kelly teach all limitation of the claim as applied to claim 1 above but they do not explicitly teach enabling a single sign-on process by sharing said authentication across multiple applications requiring authentication during a common session. However in analogous art, Wood discloses a method of single sign-on process (column 4, lines 60-67 and column 5, lines 1-9). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's and Kelly's method to include single sign-on-process. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to maintain continuity of a persistent session across multiple accesses to one or more information resources (column, lines 28-31).

References Cited, Not Used

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. U.S. Patent No. 6,070,243

This reference relates to regulating connectivity to and communicability within communication networks.

2. U.S. Patent No. 6,880,088

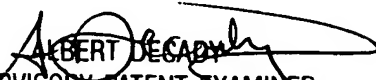
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This reference relates to apparatus and methods for transmitting secure messages in a digital communications network.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abyaneh whose telephone number is (571) 272-7961. The examiner can normally be reached on Monday-Friday from (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571)272-3819. The fax phone numbers for the organization where this application or proceeding is assigned as (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Abyaneh A. A.
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Art Unit 2133
05/210/05


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